

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS *APP'S PCT/JP99/05787*
 AN 2000:278028 HCAPLUS
 DN 132:309402
 TI Flame-retardant epoxy resin encapsulation compositions and semiconductor devices made using the same
 IN Kiuchi, Yukihiro; Iji, Masatoshi; Terajima, Katsushi; Katayama, Isao; Matsui, Yasuo; Oota, Ken
 PA Nec Corp., Japan; Sumitomo Bakelite Co. Ltd.
 SO PCT Int. Appl., 40 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 IC ICM C08G059-62
 ICS C08L063-00; C08K003-00; H01L023-29
 CC 38-3 (Plastics Fabrication and Uses)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000023494	A1	20000427	WO 1999-JP5787	19991020
	W: KR, SG, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 2000129092	A2	20000509	JP 1998-299606	19981021
	EP 1142923	A1	20011010	EP 1999-949323	19991020 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	JP 1998-299606	A	19981021		
	WO 1999-JP5787	W	19991020 <--		
AB	The compns. comprise an epoxy resin (A), a phenolic resin (B), an inorg. filler (C), and a curing accelerator (D) and give cured products with flexural modulus (E; in kg/mm ²) at 240.degree. provided that 0.015W+4.1.ltoreq.E.ltoreq.0.27W+21.8 when 30.ltoreq.W<60 (W = the content of the filler C in %) and 0.30W-13.ltoreq.E.ltoreq.3.7W-184 when 60.ltoreq.W.ltoreq.95. The cured compns. form foamed layers upon pyrolysis and firing to thereby have good flame retardancy. Thus, kneading a compn. comprising 4,4'-biphenyl diglycidyl ether/3,3',5,5'-tetramethylbiphenyl diglycidyl ether mixed resin 16.58, a phenol-biphenylaralkyl resin 20.23, fused crushed silica 60.0, carnauba wax 0.51, triphenylphosphine 0.40, a silane coupler 1.57 and carbon black 0.75% at 100.degree. for .apprx.5 min, cooling, crushing, pelletizing, transfer molding and post curing at 175.degree. for 4 h gave test pieces with 240.degree.-flexural modulus 28.0 kg/mm ² and UL94 flammability rating V-0.				
ST	fire resistance electronic packaging epoxy resin compn; encapsulation electronic epoxy phenolic resin compn; silica filler epoxy phenolic resin electronic packaging				
IT	Epoxy resins, uses				
	RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)				
	(OH-contg. polybenzyl-based; flame-retardant epoxy resin encapsulation compns. and semiconductor devices made using same)				
IT	Electronic packaging materials				
	Semiconductor devices				
	(flame-retardant epoxy resin encapsulation compns. and semiconductor devices made using same)				
IT	Polybenzyls				
	RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)				

(hydroxy-contg., epoxidized; flame-retardant epoxy resin encapsulation compns. and semiconductor devices made using same)

IT 178965-58-7D, glycidyl ethers 192333-07-6D, glycidyl ethers
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(base resins; flame-retardant epoxy resin encapsulation compns. and semiconductor devices made using same)

IT 2461-46-3, 4,4'-Biphenyl diglycidyl ether 27043-37-4 85954-11-6,
3,3',5,5'-Tetramethylbiphenol diglycidyl ether
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(base resins; flame-retardant epoxy resin encapsulation compns. and semiconductor devices made using same)

IT 603-35-0, Triphenylphosphine, uses
RL: CAT (Catalyst use); USES (Uses)
(curing accelerator; flame-retardant epoxy resin encapsulation compns. and semiconductor devices made using same)

IT 178965-58-7 192333-07-6
RL: MOA (Modifier or additive use); USES (Uses)
(curing agent; flame-retardant epoxy resin encapsulation compns. and semiconductor devices made using same)

IT 7631-86-9, Silica, uses
RL: MOA (Modifier or additive use); USES (Uses)
(fillers; flame-retardant epoxy resin encapsulation compns. and semiconductor devices made using same)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Sumitomo Bakelite Company Limited; JP 07238141 A 1995 HCAPLUS
(2) Toshiba Chemical Corporation; JP 08245754 A 1996 HCAPLUS
(3) Yuka Shell Epoxy K K; JP 08253551 A 1996 HCAPLUS

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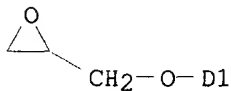
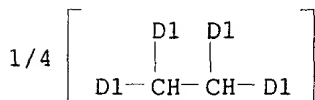
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 1 192333-07-6/BI
 (192333-07-6/RN)
 1 2461-46-3/BI
 (2461-46-3/RN)
 1 27043-37-4/BI
 (27043-37-4/RN)
 1 603-35-0/BI
 (603-35-0/RN)
 1 7631-86-9/BI
 (7631-86-9/RN)
 1 85954-11-6/BI
 (85954-11-6/RN)

L2 7 (178965-58-7/BI OR 192333-07-6/BI OR 2461-46-3/BI OR 27043-37-4/
 BI OR 603-35-0/BI OR 7631-86-9/BI OR 85954-11-6/BI)

=> d scan

L2 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Oxirane, 2,2',2'',2'''-[1,2-ethanediylidenetetrakis(phenyleneoxymethylene)
]tetrakis- (9CI)
 MF C38 H38 O8
 CI IDS, COM



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):6

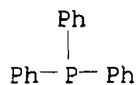
L2 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Poly[(hydroxyphenylene)methylene-1,4-phenylenemethylene] (9CI)
 MF (C14 H12 O)n
 CI IDS, PMS, COM, MAN

RELATED POLYMERS AVAILABLE WITH POLYLINK

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

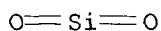
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L2 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Phosphine, triphenyl- (7CI, 8CI, 9CI)
MF C18 H15 P
CI COM



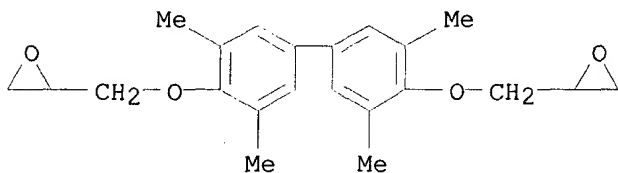
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L2 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Silica (6CI, 7CI, 8CI, 9CI)
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT
MF O2 Si
CI COM



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Oxirane, 2,2'-[(3,3',5,5'-tetramethyl[1,1'-biphenyl]-4,4'-diyl)bis(oxymethylene)]bis- (9CI)
MF C22 H26 O4
CI COM



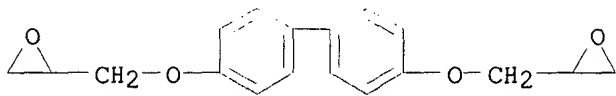
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Poly[[1,1'-biphenyl]-4,4'-diylmethylene(hydroxyphenylene)methylene] (9CI)
MF (C20 H16 O)n
CI IDS, PMS, MAN

RELATED POLYMERS AVAILABLE WITH POLYLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L2 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Oxirane, 2,2'-[[1,1'-biphenyl]-4,4'-diylbis(oxymethylene)]bis- (9CI)
MF C18 H18 O4
CI COM



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

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